

CLAIMS

1. A heat exchanger comprising:

5 a heat exchange section in which a plurality of flat tubes are arranged substantially in parallel in a minor axis direction at first intervals with fins disposed between the flat tubes; and

a header to which at least some flat tubes out of the plurality of flat tubes are connected in a state where the at least some flat tubes are bent in the minor
10 axis direction outside the heat exchange section and end parts of the at least some flat tubes are arranged substantially in parallel at second intervals that are narrower than in the heat exchange section so that the minor axis direction and a central axis direction of the header are the same direction.

15 2. A heat exchanger according to Claim 1,

wherein the end parts of the at least some flat tubes are bundled in the minor axis direction.

3. A heat exchanger according to Claim 1,

20 wherein the end parts of the at least some flat tubes are integrated in a bundled state and connected to the header.

4. A heat exchanger according to Claim 1,

25 wherein at the end parts of the at least some flat tubes, gaps between respective end parts are approximately equal to or smaller than a diameter of the flat tubes in the minor axis direction.

5. A heat exchanger according to Claim 1,
wherein the end parts of the at least some flat tubes are arranged so as
to be substantially touching in the minor axis direction.

5 6. A heat exchanger according to Claim 1,
further comprising a first header to which end parts at one end of the
plurality of flat tubes are connected and a second header to which end parts at
another end of the plurality of flat tubes are connected,
wherein the first header and the second header are disposed with
10 respect to the heat exchange section so that tube lengths of the plurality of flat
tubes between the first header and the second header are substantially equal.

7. A heat exchanger according to Claim 1,
further comprising a first header to which end parts at one end of the
15 plurality of flat tubes are connected and a second header to which end parts at
another end of the plurality of flat tubes are connected,
wherein the first header and the second header are disposed at
positions on a diagonal with the heat exchange section in between.

20 8. A heat exchanger according to Claim 1,
wherein in the heat exchange section, the plurality of flat tubes are
arranged in a first direction,
the heat exchanger further comprises a first header to which end parts at
one end of some flat tubes out of the plurality of flat tubes are connected, a
25 second header to which end parts at the one end of other flat tubes out of the
plurality of flat tubes are connected, and a third header to which end parts at
another end of the plurality of flat tubes are connected, and

the first and second headers are disposed at respective sides in the first direction outside the heat exchange section and the third header is disposed in a central vicinity in the first direction outside the heat exchange section.

- 5 9. A heat exchanger according to Claim 1,
 further comprising a plurality of headers and at least one distributor to
 which the headers are connected.
- 10 10. A heat exchanger comprising:
10 a heat exchange section in which a plurality of flat tubes are arranged in
 the minor axis direction; and
 a header to which end parts of at least some flat tubes out of the plurality
 of flat tubes are connected in a bundled state in the minor axis direction.
- 15 11. A heat exchanging system comprising:
 a heat exchanger according to Claim 1; and
 means for supplying a heat exchange medium to the heat exchanger.
- 20 12. A heat exchanging system comprising:
20 a heat exchanger according to Claim 10; and
 means for supplying a heat exchange medium to the heat exchanger.
- 25 13. A method of manufacturing a heat exchanger including a heat exchange
 section in which a plurality of flat tubes are arranged in the minor axis direction
25 and a header to which end parts of at least some flat tubes out of the plurality of
 flat tubes are connected in a bundled state in the minor axis direction, the
 method comprising:

a first step of bundling the end parts of the at least some flat tubes; and
a second step of attaching the end parts in the bundled state to the
header.